# TRAINING PROGRAM OF INSTRUCTION (TPI)

### **FOR**

### **AFIS-BGR**

### **BASIC GRAPHICS COURSE**

Approved by:

//SIGNED//

Eugene Harper, Jr.
Director of Training
American Forces Information Service

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### **BASIC GRAPHICS COURSE**

### TRAINING PROGRAM of INSTRUCTION

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#### TRAINING PROGRAM OF INSTRUCTION

### **Preface**

#### TRAINING PROGRAM OF INSTRUCTION FILE NUMBER: AFIS-BGR

**TITLE:** Basic Graphics

**TRAINING LOCATION:** Fort George G. Meade, Maryland

**SPECIALTY AWARDED:** USA 25M

USMC 4611 USAF 3V031

**PURPOSE:** To provide students the skills required to perform and fulfill the duties and responsibilities of the graphic/multimedia career field.

COURSE DESCRIPTION: The scope of training includes: principles of design and layout; fundamentals of color theory; fundamentals of realistic drawing; color media; perspective; fundamentals of lettering; printing reproduction; electronic imaging systems; elements of graphic design; image editing; desktop publishing; multimedia and telecommunications software; image scanners; digitizing devices; output to black and white and color printers; film and video recorders; plotters; image/data transmission; art work files; imagery captions; Visual Information Record Identification Numbers (VIRIN); archiving data/image files; computer management; computer hardware and software, systems configuration; computer graphics raster and vector software; electronic presentations; ethics; visual communications; web page design software; animation software; digitized audio and video software; combat documentation (reference sketches) graphics; customer relations, and operator maintenance; safety and security.

**PREREQUISITES:** Students must meet all Service prerequisites for entry into this MOS or AFSC: completion of high school or GED equivalency; GT of 100 or higher IAW USMC MOS Manual MCO P1200.7 and AFMAN 36-2108 (formerly AFR 39-1). Normal color vision as defined in AFMAN 48-123 (formerly AFR 160-43) is mandatory.

**SECURITY CLEARANCE:** USMC MCO P1200.7 requires eligibility for SECRET security clearance. AFMAN 36-2108 (formerly AFR 39-1) requires eligibility for SECRET security clearance IAW AFI 31-501 (formerly AFR 205-32) for award and retention of semi-skilled AFSCs.

#### **CLASS SIZE:**

MAXIMUM 15 (two classes run concurrently)

MINIMUM 8

#### ANNUAL COURSE CAPACITY 240

**COURSE LENGTH:** 66 Training Days

ACADEMIC HOURS: 520 Hrs

ADMINISTRATIVE HOURS: 8 Hrs

TOTAL COURSE HOURS: 528 Hrs

**INSTRUCTOR CONTACT HOURS:** 1980 Hrs

### TYPE/METHOD OF INSTRUCTION:

Administrative (AD) - 8 Hrs

Lecture (L) - 42 Hrs

Demonstration (D) -36.5 Hrs

Demonstration/ Performance Exercise (D/PE) – 28.5 Hrs

Computer-Aided Instruction (CAI) – 12 Hrs

Computer-Aided Instruction/ Performance Exercise (CAI/ PE) – 10.5 Hrs

Performance Exercise (PE) – 114.5 Hrs

Examination

Performance (EP) -270 Hrs Written (EW) - 6 Hrs

**TRAINING START DATE:** August 2001

**ENVIRONMENTAL IMPACT:** None. DoD policy was followed to assess the environmental impact.

**MANPOWER:** The Interservice Training Review Organization (ITRO) formula was used to determine the number of instructors required.

**EQUIPMENT and FACILITIES:** The Course Design Resource Estimate (CDRE) contains this information.

**TRAINING DEVELOPMENT PROPONENT:** American Forces Information Service, Training Directorate, (AFIS/TD): (703) 428-0607; DSN 328-0607

## FUNCTIONAL AREA 1 ILLUSTRATION AND DESIGN

**TPFN:** AFIS-BGR-001-001-

**UNIT TITLE:** Realistic Drawing (principles of realistic drawing)

**TPFN HOURS AND TYPE:** 8L; 4CAI; 5D; 16PE; 25EP

**TPFN TOTAL HOURS:** 58

**PREREQUISITE TPFN:** N/A

TASK (S):	001	Identify safety hazards within a graphics shop.
	002	Identify security (procedures, precautions and levels of security).
	003	Discuss good customer relations (customer needs, work orders and priority of work).
	004	Use basic drawing tools and equipment.
	005	Define basic terms of realistic drawing.
	006	Apply the principles of realistic drawing using, form, proportion
		(grid, rectangle, plumbing), contour and shading.
	007	Describe and apply the principles of perspective.
	800	Produce combat documentation (reference sketches)
	009	Use an art work file, Captions and Visual Information Record
		Identification Numbers (VIRIN).
	010	Operate a dry electrostatic copier.

**SUMMARY OF INSTRUCTION:** During informal lecture, students learn terms, definitions, and procedures regarding safety and security within a graphics shop. Students discuss how to develop good customer relations and review work requests, and perform graphics operations using an artwork file, captions and VIRINs. Students receive an overview of the principles of realistic drawing. Students will use Computer Aided Instruction (CAI) self-paced module during the course of instruction. Using the basic drawing tool and equipment, they create illustrations applying form, proportion (grid, rectangle, plumbing), contour, shading, and perspective. Students experience a Field Training Exercise developing combat documentation. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

**REFERENCES:** Student Study Guide, Extension Course Institute Air University CDC 3V051: Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; Drawing on the Right Side of the Brain, J.P. Tarcher; applicable manufacturers' manuals; CAI administrated for Unit 4, Graphics; Color Theory and Realistic Drawing.

### **INSTRUCTOR/STUDENT RATIO:** 1:15(L, CAI, D); 1:8(PE, EP)

**SAFETY FACTORS:** Injury hazard from sharp objects such as Craftsman knives; electrical hazards such as frayed power cords, cracked or missing outlet covers, exposure to liquids or excessive moisture; and tripping hazard from cables and cords from computer systems. Use caution so that electrical equipment is maintained in accordance with manufacturer's specifications and tools are stored properly in taborets; Conduct a Risk Assessment prior to FTX.

# FUNCTIONAL AREA 1 ILLUSTRATION AND DESIGN

**TPFN:** AFIS-BGR-001-002-

**UNIT TITLE:** Typography (fundamentals of typography)

TPFN HOURS AND TYPE: 2L

TPFN TOTAL HOURS: 2

**PREREQUISITE TPFN:** All previous TPFNs, art portfolio and sketchbook

**TASK (S):** 001 Identify the anatomy and categories of type.

**SUMMARY OF INSTRUCTION:** During an informal lecture, students are introduced to the fundamentals and principles of typography. Students learn the origins of the alphabet, the anatomy of type, categories of type, and the fundamentals of text layout. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent on written examinations.

**REFERENCES:** Student Study Guide; Extension Course Institute Air University CDC 3V051: Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals.

**INSTRUCTOR/STUDENT RATIO:** 1:15(L)

**SAFETY FACTORS:** Injury hazard from sharp objects such as Craftsman knives; electrical hazards such as frayed power cords and cracked or missing outlet covers; electrocution hazard--ensure there is no standing water around electrical equipment and area is clean and clear of obstructions.

# FUNCTIONAL AREA 1 ILLUSTRATION AND DESIGN

**TPFN:** AFIS-BGR-001-003-

**UNIT TITLE:** Layout and Design

**TPFN HOURS AND TYPE:** 5.5L; 6.5D; 32PE; 70EP; 2EW

**TPFN TOTAL HOURS:** 116

**PREREQUISITE TPFN:** All previous TPFNs, art portfolio and sketchbook

**TASK (S):** 001 Define basic terms of layout and design.

002 Identify elements of design.003 Produce a design project.004 Produce a layout project.

OO5 Produce a layout and design project.

**SUMMARY OF INSTRUCTION:** During an informal lecture, students learn basic terms and definitions of the elements and principles of layout and design. Color is introduced as an integral element of design and is emphasized through out the course of instruction. Students apply principles of design and layout to create thumbnail sketches that bring about visual solutions to formal problems of concept and elemental organization. Students develop roughs, apply principles of color theory and color harmony, and refine their layout. A finished comprehensive is rendered using pre-determined media techniques. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent of graded items on both the performance examination and a written examination.

**REFERENCES:** Student Study Guide; Extension Course Institute Air University CDC 3V051: Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals.

**INSTRUCTOR/STUDENT RATIO:** 1:15 (L, D) 1:8 (PE, EP, EW)

**SAFETY FACTORS:** Injury hazard from sharp objects such as Craftsman knives; electrical hazards such as frayed power cords and cracked or missing outlet covers; electrocution hazard--ensure there is no standing water around electrical equipment and area is clean and clear of obstructions.

**TPFN:** AFIS-BGR-002-001-

**UNIT TITLE:** Computer Fundamentals

**TPFN HOURS AND TYPE:** 4.5L; 0.5D; 1CAI; 2PE

**TPFN TOTAL HOURS:** 8

**PREREQUISITE TPFN:** All previous TPFNs, art portfolios, and sketchbook

**TASK (S):** 001 Define basic terms about computer hardware and software.

Discuss computer equipment setup and systems configuration.

Discuss software installation and perform operator level maintenance.

004 Use basic keyboard and mouse functions.

OO5 Perform computer systems and file management.

006 Use a local area network.

007 Use magnetic media.

**SUMMARY OF INSTRUCTION:** During informal lecture, students learn basic terms and definitions about computer hardware and software, computer setup, and system configuration. Through computer-assisted instructions and demonstration, students gain practical knowledge about a computer operating system, local area networks, and file management. Students will use a CAI self-paced module during the course of instruction. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent of graded items on both the performance examination and a written examination.

**REFERENCES:** Student Study Guide, Extension Course Institute Air University CDC 3V051; Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals; Mac Basic Tutorial.

**INSTRUCTOR/STUDENT RATIO:** 1:15(L, CAI); 1:8(D, PE)

**SAFETY FACTORS:** Electrical hazard from computer systems connections; tripping hazard from cable cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

**TPFN:** AFIS-BGR-002-002-

**UNIT TITLE:** Digital Page Layout and Design

**TPFN HOURS AND TYPE:** 4L; 2CAI; 0.5D; 2EP

**TPFN TOTAL HOURS:** 8.5

**PREREQUISITE TPFN:** All previous TPFNs, art portfolios and sketchbook

**TASK (S):** 001 Identify the fundamentals of digital color theory and color harmony.

Apply the fundamentals of digital color theory and color harmony.

003 Identify elements of digital page layout and design.

Use elements of digital page layout and design.

O05 Identify methods of printing reproduction and discuss general information about

service bureaus.

**SUMMARY OF INSTRUCTION:** During informal lecture, students receive information on the fundamentals of color theory, page layout, printing reproduction and service bureaus. Students will use a CAI self-paced module during the course of instruction. These tasks will be used and graded throughout the rest of the course of instruction. The grades will be given at the end of each lesson performance exercise. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent of graded items on both the performance examination and a written examination.

**REFERENCES:** Student Study Guide, Extension Course Institute Air University CDC 3V051; Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals; Kodak Digital Learning Center, Digital Imaging Fundamentals, What is Color? <a href="http://www.kodak.com/US/en/digital/dlc/book3/chapter2/index.shtml">http://www.kodak.com/US/en/digital/dlc/book3/chapter2/index.shtml</a>

INSTRUCTOR/STUDENT RATIO: 1:15(L, D, CAI); 1:8(PE)

**SAFETY FACTORS:** Electrical hazard from computer systems connections; tripping hazard from cables cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

**TPFN:** AFIS-BGR-002-003-

**UNIT TITLE:** Vector-based graphic design

**TPFN HOURS AND TYPE:** 2 L; 8D; 1CAI; 5.5CAI/PE; 6PE; 18EP

**TPFN TOTAL HOURS:** 40.5

**PREREQUISITE TPFN:** All previous TPFNs, art portfolios and sketchbook

**TASK (S):** 001 Define basic terms about vector-based graphic design.

002 Use a digitizing tablet.

003 Use vector-based graphic design software.

Use a color plotter.

**SUMMARY OF INSTRUCTION:** During informal lecture, students learn basic terms and definitions about vector-based graphic design software. Through demonstration and performance exercise, students use vector-based graphic design. Students create an illustration project using vector graphics software and a color printer. Application of basic layout, design fundamentals and color theory are emphasized in all tasks. Students will use a CAI, self-paced module during the course of instruction. A performance examination covering the above tasks will be given at the end of this block of instruction. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

REFERENCES: Student Study Guide, Extension Course Institute Air University CDC 3V051; Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals; Adobe Illustrator tutorials; Kodak Digital Learning Center, Printer Technology. <a href="http://www.kodak.com/US/en/digital/dlc/book2/chapter2/index.shtml">http://www.kodak.com/US/en/digital/dlc/book2/chapter2/index.shtml</a>

INSTRUCTOR/STUDENT RATIO: 1:15(L, D, CAI); 1:8(CAI/PE, PE, EP)

**SAFETY FACTORS:** Electrical hazard from computer systems connections; tripping hazard from cables, cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

**TPFN:** AFIS-BGR-002-004 -

**UNIT TITLE:** Image Editing/Raster-based Design

TPFN HOURS AND TYPE: 2L; 8D; 2CAI; 5CAI/PE; 18PE; 30EP

**TPFN TOTAL HOURS:** 65

**PREREQUISITE TPFN:** All previous TPFNs, art portfolios, and sketchbook

**TASK(S):** 001 Define basic terms about raster-based graphic design.

Define basic terms about image ethics and image editing.

003 Use image-editing software.

004 Use raster-based image design software.

Use a flatbed image scanner.

Use film scanner.Use a digital camera.

**SUMMARY OF INSTRUCTION:** During informal lecture, students learn basic terms and definitions of image ethics, image editing, raster-based software, scanners, and digital camera. Through a demonstration and performance exercise, students learn proper use of a flatbed image scanner, film scanner, digital camera, and use of image editing raster-based software. Students create an illustrations using raster-based image design software. Application of basic layout, design fundamentals and color theory are emphasized in all tasks. Students will use a CAI self-paced module during the course of instruction. A performance examination covering the above tasks will be given at the end of this block of instruction. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

**REFERENCES:** Student Study Guide, Extension Course Institute Air University CDC 3V051; Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals; Adobe Photoshop tutorials; Kodak Digital Learning Center, Digital Imaging Fundamentals. <a href="http://www.kodak.com/US/en/digital/dlc/book3/chapter1/index.shtml">http://www.kodak.com/US/en/digital/dlc/book3/chapter1/index.shtml</a>

**INSTRUCTOR/STUDENT RATIO:** 1:15(L, CAI); 1:8(D, CAI/PE, PE, EP)

**SAFETY FACTORS:** Electrical hazard from computer systems connections; tripping hazard from cables, cords, and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

**TPFN:** AFIS-BGR-002-005-

**UNIT TITLE:** Electronic Desktop Publishing

**TPFN HOURS AND TYPE:** 0.5L; 3D; 2CAI; 4PE; 12EP

**TPFN TOTAL HOURS:** 21.5

**PREREQUISITE TPFN:** All previous TPFNs, art portfolios, and sketchbook

**TASK (S):** 001 Define basic terms about electronic desktop publishing.

002 Use electronic desktop publishing software.

**SUMMARY OF INSTRUCTION:** During informal lecture, students learn basic terms and definitions about desktop publishing. Through demonstration and performance exercise, students use desktop publishing software. Students create a graded project combining text and graphic images, elements of page layout, design fundamentals, color theory, and electronic format extensions for HTML and PDF documents. The Raster and Vector illustrations created by the student are used in this project for traditional and electronic publishing. Students will use a CAI self-paced module during the course of instruction. A performance examination covering the above tasks will be given at the end of this block of instruction. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

**REFERENCES:** Student Study Guide, Extension Course Institute Air University CDC 3V051; Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals. Electronic Publishing Guide, Adobe Acrobat Publishing for the World Wide Web or CD-Rom.

**INSTRUCTOR/STUDENT RATIO:** 1:15(L, CAI); 1:8(D, PE, EP)

**SAFETY FACTORS:** Electrical hazard from computer systems connections; tripping hazard from cables cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

**TPFN:** AFIS-BGR-002-006-

**UNIT TITLE:** Digital Graphic Design Project

**TPFN HOURS AND TYPE:** 0.5L; 1D; 27EP; 2EW

**TPFN TOTAL HOURS:** 30.5

**PREREQUISITE TPFN:** All previous TPFNs, art portfolios, and sketchbook

**TASK(S):** 001 Use computer graphics software.

Measurement and feedback (final Functional Area test)

**SUMMARY OF INSTRUCTION:** During informal lecture, students will receive information on how to apply previous information into a final publication. Through performance examination, students use raster-based image editing, vector-based and desktop publishing software. Students create a graded project of original design, vector-based and raster based graphics, combined into a desktop publication and printed to a color printer. Basic layout and design fundamentals, to include color theory, will be required in all projects. A performance examination covering the above tasks will be given at the end of this block of instruction. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

**REFERENCES:** Student Study Guide, Extension Course Institute Air University CDC 3V051; Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals.

INSTRUCTOR/STUDENT RATIO: 1:15(L, D); 1:8(EP, EW)

**SAFETY FACTORS:** Electrical hazard from computer systems connections; tripping hazard from cables, cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

**TPFN:** AFIS-BGR-003-001-

**UNIT TITLE:** Presentation Software

**TPFN HOURS AND TYPE:** 6L; 10D/PE; 6PE; 10EP

**TPFN TOTAL HOURS:** 32

**PREREQUISITE TPFN:** All previous TPFNs, art portfolio, and sketchbook

**TASK(S):**001 Define basic terms and design principles of projected media, to include overhead viewgraphs, 35mm slides, film recorders and electronic projection systems.
002 Define basic terms and characteristics of electronic presentation software, to include formats, slide master, text features, import options, output options, and organization.

003 Define charts and graphs, to include types of charts, their purpose, the elements of a chart, and design considerations.

- 004 Explain basic terms and concepts for video teleconferencing to include operating principles, equipment and system management.
- Use presentation software to create an electronic presentation that incorporates raster images, vector images, digital audio-video, basic animation and charts.

**SUMMARY OF INSTRUCTION:** During informal lecture, students learn basic terms, characteristics, and definitions of presentation software, to include projected media, overhead viewgraphs, 35mm slides, electronic presentations, charts and graphs, basic animation, digital audiovideo and video teleconferencing. Through demonstration and performance exercise, students use presentation software to create electronic presentations. A performance examination covering the above tasks will be given at the end of this block of instruction. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

**REFERENCES:** Student Study Guide, Extension Course Institute Air University CDC 3V051; Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals.

**INSTRUCTOR/STUDENT RATIO:** 1:15(L); 1:8(D/PE, PE, EP)

**SAFETY FACTORS:** Electrical hazard from computer systems connections; tripping hazard from cables, cords and a subdued lighted environment.

**TPFN:** AFIS-BGR-003-002-

**UNIT TITLE:** Digital Audio and Digital Video

TPFN HOURS AND TYPE: 3L; 4.5D/PE; 0.5PE

**TPFN TOTAL HOURS:** 8

**PREREQUISITE TPFN:** All previous TPFNs, art portfolio, and sketchbook

TASK(S): 001 Define basic terms, concepts, and procedures for digitizing, editing, and saving digital audio files.

002 Define basic terms, concepts, and procedures for digitizing, editing, compressing, and saving digital video files.

003 Define basic terms about weapons systems imagery and product distribution.

004 Use digital audio and digital video software.

**SUMMARY OF INSTRUCTION:** During informal lecture, students learn basic terms and definitions about digital audio, digital video, armament delivery recordings, imagery captions, video recorders, and product distribution. During a guided demonstration, students will use digital audio and digital video software to complete a performance exercise. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

**REFERENCES:** Student Study Guide; Extension Course Institute Air University CDC 3V051; Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals.

**INSTRUCTOR/STUDENT RATIO:** 1:15(L); 1:8(D/PE, PE)

**SAFETY FACTORS:** Electrical hazard from computer systems connections; tripping hazard from cables, cords and a subdued lighted environment.

**TPFN:** AFIS-BGR-003-003-

**UNIT TITLE:** Web Page (telecommunications)

**TPFN HOURS AND TYPE:** 2L; 2D; 7D/PE; 16PE; 39EP

**TPFN TOTAL HOURS:** 64

**PREREQUISITE TPFN:** All previous TPFNs, art portfolio, and sketchbook

**TASK(S):** 001 Define basic terms about image/data transmission and satellites.

002 Describe telecommunications software.

Apply image/data compression (lossy/lossless).
Create a Web site with web page design software

005 Transmit data via telecommunications.

**SUMMARY OF INSTRUCTION:** During informal lecture, students learn basic terms and definitions of image/data transmission, satellites, and Web page design. Through demonstration and performance exercises, students use the Internet, Web browser, Web page design software, and image/data compression techniques, and transmit data via telecommunications. A performance examination covering the above tasks will be administered at the end of this block of instruction. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

**REFERENCES:** Student Study Guide; Extension Course Institute Air University CDC 3V051; Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals.

INSTRUCTOR/STUDENT RATIO: 1:15(L, D); 1:8(D/PE, PE, EP)

**SAFETY FACTORS:** Electrical hazard from computer systems connections; tripping hazard from cables, cords, and a subdued lighted environment.

**TPFN:** AFIS-BGR-003-004-

**UNIT TITLE:** Multimedia Authoring Software

**TPFN HOURS AND TYPE:** 2L; 2D; 7D/EP; 14PE; 38EP; 2EW

TPFN TOTAL HOURS: 64

**PREREQUISITE TPFN:** All previous TPFNs, art portfolio, and sketchbook

**TASK(S):** 001 Define basic terms, concepts, and procedures for multimedia authoring and

animation.

002 Use multimedia-authoring software to produce an interactive multimedia project.

003 Create animation.

004 Use recordable and photo CDs.

005 Use internal/external-archived images.

006 Measurement and feedback (FA 3).

**SUMMARY OF INSTRUCTION:** During informal lecture, students learn basic terms and definitions about multimedia authoring and animation. Through demonstration and performance exercises, students use multimedia software, animation software, recordable and photo CDs, and internal/external archived images to create an interactive multimedia project. A performance examination covering the above tasks will be administered at the end of this block of instruction. A final written examination consisting of 50 questions will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

**REFERENCES:** Student Study Guide; Extension Course Institute Air University CDC 3V051; Soldier's Manual and Trainer's Guide MOS 25M STP 11-25M13-SM-TG, Multimedia Illustrator; Illustrator Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals.

INSTRUCTOR/STUDENT RATIO: 1:15(L, D); 1:8(D/ PE, EP, EW)

**SAFETY FACTORS:** Electrical hazard from computer systems connections; tripping hazard from cables, cords and a subdued lighted environment.

### FUNCTIONAL AREA 4 COURSE ADMINISTRATION

**TPFN:** AFIS-BGR-004-001-

**UNIT TITLE:** Course Administration

**TPFN HOURS AND TYPE:** 8AD

**TPFN TOTAL HOURS:** 8

PREREQUISITE TPFN: None

**TASK(S):** 001 Inprocessing/Orientation.

002 Course evaluation.

003 Outprocessing/Graduation.

**SUMMARY OF ACTIVITIES:** Self-explanatory. Sketchbooks and a scheduled assignments list will be issued to students at the beginning of the course. Sketchbooks will be the faculty's means of observing student improvement to render their concepts to paper. The drawing assignments will be the determining factor for the Most Improved Sketchbook Award and the Best Sketchbook Award presented at graduation.

**REFERENCES:** DINFOS Policy and Procedure Manual

**INSTRUCTOR/STUDENT RATIO:** 1:30(AD)

**SAFETY FACTORS:** N/A